

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A nitride-based semiconductor light-emitting device comprising:

a silicon doped n-type GaN-based substrate; and

a semiconductor stacked-layer structure including a plurality of nitride-based semiconductor layers grown on said GaN-based substrate by metal-organic chemical vapor phase deposition,

said GaN-based substrate having an interface region contacting said semiconductor stacked-layer structure and said interface region containing oxygen atoms at ~~concentration n in~~ the range of $2 \times 10^{16} \leq n \leq 10^{22} \text{ cm}^{-3}$ and said GaN-based substrate ~~containing chlorine~~ grown by hydride vapor phase epitaxy method,

said semiconductor stacked-layer structure including a silicon doped n-type nitride-based semiconductor layer, a light-emitting layer, and a p-type nitride-based semiconductor layer in this order from the substrate side.

Claim 2 (cancelled)

Claim 3 (currently amended): The nitride-based semiconductor light-emitting device according to claim 1, wherein

~~said GaN-based substrate~~ said interface region contains oxygen atoms at concentration n in the range of $2 \times 10^{16} \leq n \leq 10^{22} \text{ cm}^{-3}$.

Claim 4 (cancelled)

Claim 5 (currently amended): A nitride-based semiconductor light-emitting device comprising:

a GaN-based substrate including a p-type impurity; and

a semiconductor stacked-layer structure including a plurality of nitride-based semiconductor layers grown on said GaN-based substrate by metal-organic chemical vapor phase deposition,

said GaN-based substrate having an interface region contacting said semiconductor stacked-layer structure and said interface region containing oxygen atoms at ~~concentration n in the range of~~ $2 \times 10^{16} \leq n \leq 10^{22} \text{ cm}^{-3}$ and said GaN-based substrate ~~containing chlorine~~ grown by hydride vapor phase epitaxy method,

said semiconductor stacked-layer structure including a p-type nitride-based semiconductor layer, a light-emitting layer, and an n-type nitride-based semiconductor layer in this order from the substrate side.

Claim 6 (previously presented): The nitride-based semiconductor light-emitting device according to claim 5 wherein said p-type impurity includes magnesium.

Claim 7 (cancelled)

Claim 8 (currently amended): The nitride-based semiconductor light-emitting device according to claim 5 wherein

~~said GaN-based substrate~~ said interface region contains oxygen atoms at concentration n in the range of $2 \times 10^{16} \leq n \leq 10^{22} \text{ cm}^{-3}$.

Claim 9 (cancelled)

Claim 10 (new): The nitride-based semiconductor light-emitting device according to claim 1, wherein

said GaN-based substrate grown by hydride vapor phase epitaxy method contains chlorine.

Claim 11 (new): The nitride-based semiconductor light-emitting device according to claim 5, wherein

said GaN-based substrate grown by hydride vapor phase epitaxy method contains chlorine.